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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,128	02/08/2002	Shutsung Liao	10634-005001	2665

7590 08/23/2002  
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EXAMINER

BADIO, BARBARA P

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 08/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/072,128

Applicant(s)

LIAO ET AL.

Examiner

Barbara P Badio, Ph.D.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) 3-11, 17-32, 35-42 and 48-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 12-16, 33, 34 and 43-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

**First Office Action on the Merits**

***Election/Restrictions***

1. Applicant's election without traverse of Group II, claims 1, 2, 12-16, 33, 34 and 43-47, drawn to compounds and compositions of formula I wherein R<sub>5</sub> and R<sub>6</sub> together form a double bond between C-5 and C-6 and R<sub>7</sub> is oxo, in Paper No. 3 is acknowledged.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 2, 12-14, 33, 34 and 43-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The instant claims are confusing because they recite R<sub>4</sub>, R<sub>4'</sub>, R<sub>17</sub> and R<sub>17'</sub> independently can be oxo. For example, if R<sub>4</sub> and R<sub>4'</sub> are independently oxo, the valence of the carbon atom to which they are attached would be incorrect. For the purpose of art rejection, it is assumed that together R<sub>4</sub> and R<sub>4'</sub> or R<sub>17</sub> and R<sub>17'</sub> can be oxo.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

- w 5. Claims 1, 2, 12-14, 33, 34 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Daynes et al. ('910).

Daynes et al. teach vaccine compositions comprising DHEA and DHEA derivatives such as 7-oxo-DHEA-S (see the entire article, especially col. 7, line 51 and col. 9, lines 11-44). The compounds and compositions taught by the reference are encompassed by the instant claims.

- w 6. Claims 1, 12, 33 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Wildi ('853).

Wildi teaches the production of 7-keto derivatives such as 7-cholestenone acetate (see the entire article, especially col. 2, example). The compounds and compositions taught by the reference are encompassed by the instant claims.

- w 7. Claims 1, 12, 33 and 43 are rejected under 35 U.S.C. 102(e) as being anticipated by Miller et al. ('247).

Miller et al. teach the production of 5-ene-7-keto alkenes such as 7-cholestenone acetate (see the entire article especially col. 4, lines 1-35 and col. 9, structure). The compounds and compositions taught by the reference are encompassed by the instant claims.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

w 9. Claims 1, 2, 12-16, 33, 34 and 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. ('247).

Miller et al. teach the production of 5-ene-7-keto alkenes such as 7-cholestenone acetate (see the entire article especially col. 4, lines 1-35 and col. 9, structure).

The instant claims differ from the reference by reciting compounds not exemplified by the reference. However, the reference teaches the 3-position can be any esterified hydroxy group (see especially col. 5, lines 9-25). The ordinary artisan in the art at the time of the invention would readily envisage the utilization of a wide variety of esters, including those of the instant claims, with the reasonable expectation of obtaining that the desired 5-ene-7-keto as taught by Miller. In addition, an ester is

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ordinarily unpatentable over the alcohol from which it is derived because esterification is widely practiced in the chemical art. Ex parte Korten, 71 USPQ 173.

***Telephone Inquiry***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara P Badio, Ph.D. whose telephone number is 703-308-4595. The examiner can normally be reached on M-F from 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jose Dees can be reached on 703-308-4628. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4556 for regular communications and 703-308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

  
Barbara P Badio, Ph.D.  
Primary Examiner  
Art Unit 1616

BB  
August 22, 2002